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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,736	10/31/2003	Jerry Z. Shan	200208138-1	3123

22879 7590 09/21/2005

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EXAMINER	
KUNDU, SUJOY K	

ART UNIT	PAPER NUMBER
2863	

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

A1

Office Action Summary	Application No.	Applicant(s)	
	10/698,736	SHAN ET AL.	
	Examiner	Art Unit	
	Sujoy K. Kundu	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *August 8, 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 9, 10, 12, 15-18, 21-23, 25-27, 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Morita (5,453,749).

With regards to Claim 1, 12, 15, 17, 22, 25, and 27, Morita (5,453,749) teaches a processor-based method comprising:

receiving a data stream (Column 3, Line 27) comprising a plurality of temporally ordered data points (Summary of Invention, Column 3, Lines 27-30);

generating a plurality of sequences (Fig. 3) from a first portion of the data stream (Fig.3, Column 5, Lines 19-29, 43-54); and

training a detector (Column 5, Lines 19-21) by determining a value for a sensitivity parameter (Fig. 3, Step SE) using the plurality of sequences (Fig. 3, Column 5, Lines 19-21, 43-54).

With regards to Claims 2 and 16, Morita teaches a method comprising running the detector on a second portion of the data stream (Column 5, Lines 43-54).

Regarding Claim 4 and 18, Morita teaches wherein training the detector by determining the value for the sensitivity parameter based on a target level for an estimated performance characteristic of the detector (Fig. 3, Lines 19-33).

Regarding Claim 9 and 30, Morita teaches a method wherein generating a plurality of sequences comprises:

selecting a change based on a distribution of changes (Fig. 3, Column 6, Lines 48-59); and

generating a changed sequence based on the selected change (Fig. 3, Step SC, Column 6, Lines 59-67).

Regarding Claims 10 and 11 Morita teaches a method wherein determining the value for the sensitivity parameter (Fig. 3, Step SE) comprises determining a plurality of values for the sensitivity parameter using the plurality of sequences (Fig. 3, Column 5, Lines 19-21, 43-54).

Regarding Claims 14, 21 and 23 Morita teaches a method comprising raising an alarm (Column 23, Lines 59-65) when respective detector signals detection when parameterized by the respective sensitivity parameter (Fig. 3, Step SE) and run on a respective second portion of a sufficient set of data streams (Column 5, Lines 43-54).

Regarding Claim 20, Morita teaches a method comprising an alarm (Column 23, Lines 59-65) only if an interesting event is detected in the data stream a predetermined number of times within a predetermined amount of time (Column 5, Lines 30-43).

Regarding Claim 15, 22, 25, 26, 27, Morita teaches a computer readable medium, storing computer instructions for generating a score corresponding to a second portion of the data stream (Column 5, Lines 19-29); and signaling detection of an interesting event in the data stream if the score (RAM 34, Column 5, Line 27) crosses the sensitivity parameter (Column 5, Lines 30-43).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3, 5, 13, 19, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morita as in view of Cox et al. (5,734,592).

Morita, teaches all the limitations as discussed above, however Morita does not teach a method wherein running the detector comprises: generating a score corresponding to the second portion of the data stream; comparing the score to the determined value for the sensitivity parameter; and signaling detection in claim 3 and 5.

Regarding claims 3, 5, 19 Cox et al. discloses a method wherein running the detector comprises: generating a score (Fig. FA, 20) corresponding to the second portion of the data stream (Fig. 4A, 20, Column 2, Lines 41-43); comparing the score to the determined value for the sensitivity parameter (Fig. 4A, 20, Column 2, Lines 43-49); and signaling detection (Fig. 4A).

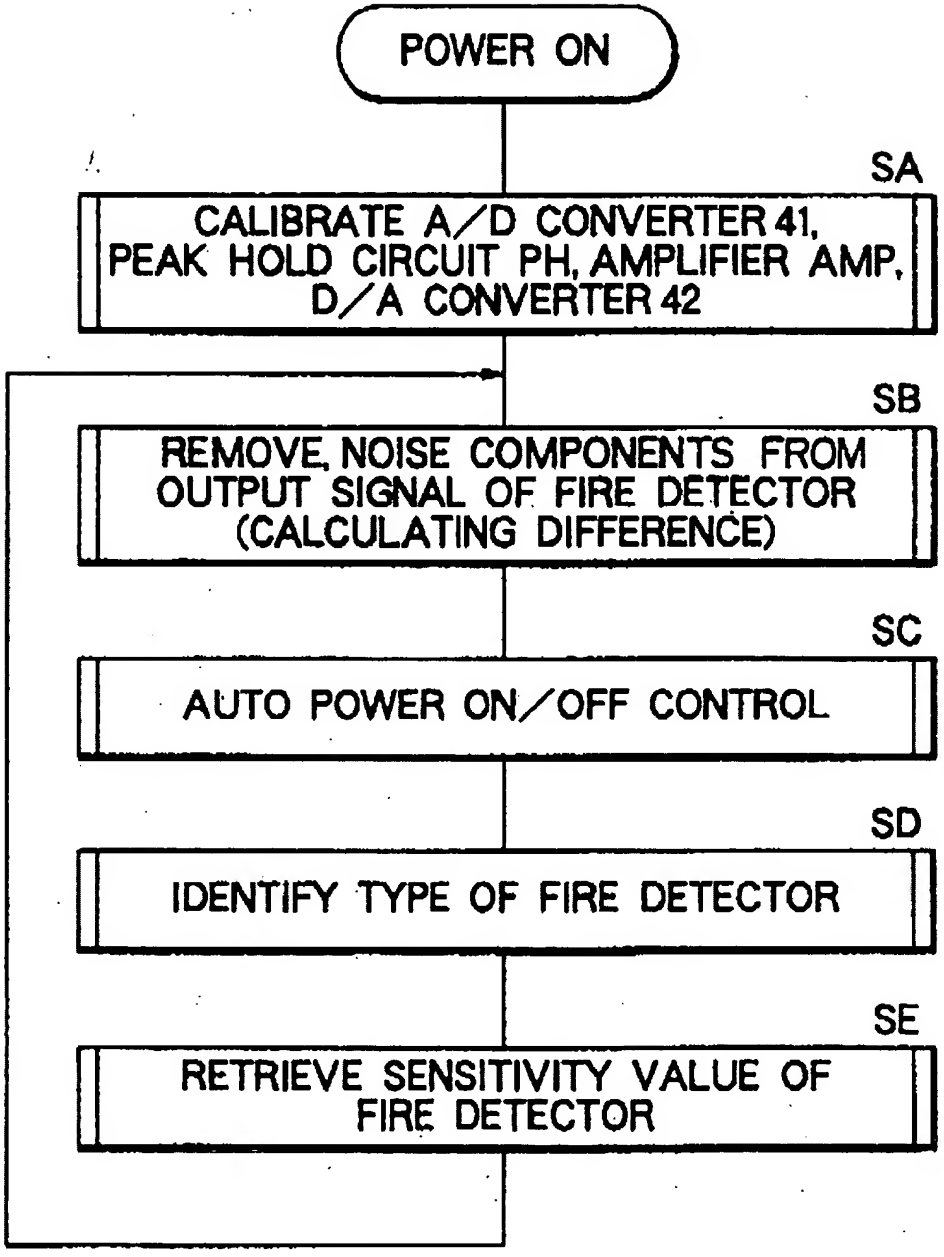
It would have been obvious to one of ordinary skill in the art at the time the invention was made to create a method wherein running the detector comprises: generating a score corresponding to the second portion of the data stream; comparing the score to the determined value for the sensitivity parameter; and signaling detection

as taught by Cox into Morita for the purpose of minimizing cost and providing increase in operational time (Morita, Background of the Invention, Column 2, Lines 32-47).

Regarding claims 13 and 24, Morita teaches all the limitations discussed above, however Morita does not teach a method for determining the value for the sensitivity parameter comprises determining the value for the sensitivity parameter at lease partially on cost parameters.

Cox teaches a method for determining the value for the sensitivity parameter comprises determining the value for the sensitivity parameter at least partially on cost parameters (Claims, Column 11, Claim 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include teaches a method for determining the value for the sensitivity parameter comprises determining the value for the sensitivity parameter at lease partially on cost parameters as taught by Cox into Frey for the purpose of providing increase in operational time (Morita, Background of the Invention, Column 2, Lines 32-47).



Regarding claims 6-8 and 28-29, are rejected under 35 U.S.C. 103(a) as being unpatentable over Morita and Cox as applied to claim 3 above and further in view of Ikeguchi et al. (US 2005/0075832 A1)

Morita as modified by Cox teach all the limitations above. However, Morita as modified does not teach inferring a statistical distribution of a known type to characterize the first portion of the data stream; and generating the plurality of sequences from the statistical distribution (claims 6 and 8). In addition, Morita as modified does not teach a discrete distribution containing data points from the first portion of the data stream, and wherein generating the plurality of sequences from the statistical distribution comprises selecting data points from the discrete distribution (claim 7 and 29). Furthermore, Morita as modified does not teach inferring a known type of distribution comprises determining a set of parameters corresponding to the known type of statistical distribution (claim 8).

With respect to claims 6 and 28, Ikeguchi discloses a method for inferring a statistical distribution of a known type to characterize the first portion of the data stream; and generating the plurality of sequences from the statistical distribution (Background of the Invention, Paragraph 13). Furthermore, Ikeguchi discloses a discrete distribution containing data points from the first portion of the data stream, and wherein generating the plurality of sequences from the statistical distribution (Background of the Invention, Paragraph 13) comprises selecting data points from the discrete distribution (Fig. 7A, Page 5, Paragraph 65). Nevertheless, Ikeguchi discloses a method for inferring a known type of distribution comprises determining a set of parameters corresponding to the known type of statistical distribution (Page 5, Paragraph 69).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include claims 6-8 and 28-29 as taught by Ikeguchi into Cox and Morita for the purpose for facilitating an increase in processing speed.

Response to Arguments

Applicant's arguments filed August 8, 2005 have been fully considered but they are not persuasive.

With regards to independent claims 1 and 15:

Applicant argues that Morita reference does not disclose generating sequences from the output signal. However, Morita reference does disclose a plurality of sequences generated from the output signal from the smoke detector (Fig. 3, Lines 19-29). The feature ROM 21 stores a program, which sores a reference table, which corresponds to the output signal. Hence providing a sequence.

Morita does suggest training a detector determining a value for a sensitivity parameter using the plurality of sequences. With the limitation of calibrating the measured value (Fig. 1, Part 34), suggests "training."

Morita also discloses "testing" with the process disclosed in column 7, liners 33-40.

With respect to independent claims 15, 22, 25, 27:

The limitation of "detecting an interesting event in the data stream using one or more sensitivity parameters" has been addressed above. The other limitations in the claims are similar to the ones in Claim 1.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sujoy K. Kundu whose telephone number is 571-272-8586. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SKK
09/12/2005

MICHAEL NGHIEM
PRIMARY EXAMINER